

## Intensive therapy and critical medicine

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The concept of critical medicine of Dr. Alberto Lifschitz Guinzberg characterizes the objective and the daily work of the medical units of intensive care and critical medicine: "The critical refers to the serious state in which the patient, who is the object of this care, barely survives. A critical medicine is, consequently, one that addresses the seriously ill, but that is also vigilant, decisive, crucial, precise, exact, timely, reflective, analytical, judicious, committed and efficient" <sup>1</sup>.

In 1950, Dr. Peter Safar, an anesthesiologist, created an intensive care area in which he kept patients sedated and ventilated, for the reason he is considered the first intensivist; another relevant historical precedent is the polio epidemic from 1947 to 1952, which forced the concentration of patients with respiratory paralysis in units called "artificial respiration". The first central treatment and intensive care units as we conceive them today were installed at the initiative proposed by Dr. Peter Safar in Baltimore in 1958 and in Pittsburgh in 1961.

In Mexico, the Hospital General de México, Hospital 20 de Noviembre, Centro Médico Nacional, as public sector institutions, and Hospital ABC, Hospital Español, as private sector hospital units, are recognized as pioneers in the implementation of these units.

The history of intensive therapy services in the General Hospital of Mexico begins in 1962 with Dr. Héctor Hugo Rivera Reyes, with the creation of a dedicated space for the care of critically ill patients who, due to their critical condition, required continuous monitoring of the different hospital services and had little chance of recovery; it was his initiative that opened the

possibility to these patients, with the hope of surviving the critical condition.<sup>2</sup>

In 1967, the intensive care unit was inaugurated with ten beds for intensive care and ten for intermediate care, as well as electronic monitoring and specialized equipment that included a clinical laboratory, from the seventies intensive care areas were created in several units such as neurology, pulmonology, pediatric oncology, infectology, obstetrics and gynecology and cardiology. In 1974 with the appointment of head of the emergency and intensive care services, Dr. Rivera Reyes established the admission criteria for recoverable patients, and as of 1986, he was appointed Chief of the Critical Medicine Unit.

The specialization course in medicine for the sick in critical condition endorsed by the National Autonomous University of Mexico began in 1990 by Dr. Guillermo Franco Guevara, also with the periodic contribution of research articles on various pathologies published in the Journal Medical of Hospital General de México, official organ of the hospital's own medical society, as well as in other national and international magazines.<sup>2</sup>

The medical community, in the different institutions, must reconsider the meaning that intensive care units have in contemporary medicine, as well as the work of the specialist doctor and its relationship with personalized performance evaluation systems. The practice of critical medicine is based on the systematized integration of knowledge, skills and abilities in an organizational environment that requires space, personnel and technological resources. The educational process in

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these units is based on tutelary teaching, the commitment of the teacher and the student, the daily presence and a common objective: the well-being of the patient through an interaction of variables such as education, research, continuous improvement, professionalism and Ethics, within a normative, university and institutional framework to achieve in the student achieve leadership and performance of excellence<sup>1-4</sup>.

It should be fully understood that intensive therapy areas are specialized services whose purpose is to reduce the morbidity and mortality of critically ill patients, according to the Official Gazette of the Federation NOM 025-SSA3-2013. For the organization and operation of intensive care units, the cost of care per day of a patient in intensive care units of the health sector is \$ 34,509 Mexican pesos, this without taking into account the secondary costs for nosocomial infections associated with the stay the patient, or the patient's own comorbidities or the need for other high-cost treatments such as hemodialysis. Adequate evaluation of patients to determine whether or not they really benefit from intensive care based on comprehensive clinical judgment.

At present, second and third level hospitals must have areas for the care of patients in critical condition; it is considered that a minimum of 10 percent of their total beds should be used for critical care of patients. Overall, the percentage of patients who manage to survive thanks to these units and their staff is 87%<sup>4</sup>.

This year, the General Hospital of Mexico, 117 years after its foundation, gives historical testimony with the care of patients with disease caused by a virus called SARS-CoV-2 which, in a pandemic way, is responsible for 271 963 258 confirmed cases and 5 331 019 deaths worldwide until December 17, 2021 and specifically in Mexico of 3 924 638 confirmed patients and 297 188 deaths<sup>5</sup>.

In 2020, the General Hospital of Mexico Dr Eduardo Liceaga had 4 237 patients with a suspected or probable diagnosis of acute respiratory disease due to coronavirus (SARS CoV 2 COVID 19) as a reason for consultation and during 2021 there were 3,545 patients with diagnosis of acute respiratory disease due to coronavirus (SARS CoV 2 COVID 19)<sup>6,7</sup>.

The emergency and intensive therapy units were adapted or created for the care of severe patients with both COVID-19 disease, and various pathologies that present the patients who attended or were referred to this hospital. The COVID 19 pandemic has affected

public health, education, the economy, modifying the style and quality of life of humanity, which will have consequences for several decades

To establish the importance of the critical medicine and therapy units of the General Hospital of Mexico Dr. Eduardo Liceaga, the publication, for the first time, of a medical work of this specialty where the main problems of contemporary critical medicine, with the hope of succeeding in meeting the expectations of the interested medical community, and becoming a national reference text<sup>8</sup>.

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## Conflicts of interest

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## Ethical disclosures

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